

M. Brett et al.
U.S. Serial No. 09/806,003
Page 2 of 6

Amendments to the claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

Claims 1-15 (canceled)

Claim 16 (currently amended): ~~The method of claim 14~~ A method for picture-in-picture insertion.

wherein a sequence of insertion pictures decimated by vertical decimation are read into a memory device and subsequently read out,

wherein the insertion pictures read out are inserted into a sequence of main pictures,

wherein the memory device has a storage capacity of greater than one insertion picture but less than two insertion pictures and is subdivided into memory segments which are continuously overwritten by the insertion pictures,

wherein a decision is made as to whether the currently written insertion picture or the immediately preceding insertion picture is read out.

wherein more than one memory segment of the memory device is required for storing an insertion picture, and in that the memory segments of the memory device are cyclically overwritten by the insertion pictures in a predetermined order, and

wherein in a manner dependent on the ratio of a reading speed of a read pointer to a writing speed of a write pointer and a relative position of the write pointer in a writing area holding the currently written insertion picture, a decision is made as to whether the currently written insertion picture or the immediately preceding insertion picture is read out.

Claim 17 (currently amended): ~~The method of claim 14~~ A method for picture-in-picture insertion.

wherein a sequence of insertion pictures decimated by vertical decimation are read into a memory device and subsequently read out.

M. Brett et al.
U.S. Serial No. 09/806,003
Page 3 of 6

wherein the insertion pictures read out are inserted into a sequence of main pictures,
wherein the memory device has a storage capacity of greater than one insertion picture
but less than two insertion pictures and is subdivided into memory segments which are
continuously overwritten by the insertion pictures,

wherein a decision is made as to whether the currently written insertion picture or the
immediately preceding insertion picture is read out,

wherein more than one memory segment of the memory device is required for storing an
insertion picture, and in that the memory segments of the memory device are cyclically
overwritten by the insertion pictures in a predetermined order, and

wherein the memory device has a storage capacity which is $(2-1/VD)$ times the storage capacity required for an insertion picture, where VD is the vertical decimation of the insertion picture.

Claim 18 (previously presented): The method of claim 17 wherein the memory segments are the same size and the number of memory segments is $2 * VD - 1$, the number of memory segments required for an insertion picture corresponding to the vertical decimation (VD).

Claim 19 (previously presented): The method of claim 18 wherein a memory segment has a storage capacity of $1/VD$ times the storage capacity required for an insertion picture and the decision criterion that is applied is whether the last memory segment required for the currently written insertion picture is already being written too.

Claim 20 (currently amended): The method of claim 14 ~~17~~ wherein the insertion pictures (K_j) and main pictures (H_i) are fields of a monitor picture.

Claim 21 (currently amended): ~~The method of claim 14~~ A method for picture-in-picture insertion,

wherein a sequence of insertion pictures decimated by vertical decimation are read into a
memory device and subsequently read out,

wherein the insertion pictures read out are inserted into a sequence of main pictures,

M. Brett et al.
U.S. Serial No. 09/806,003
Page 4 of 6

wherein the memory device has a storage capacity of greater than one insertion picture but less than two insertion pictures and is subdivided into memory segments which are continuously overwritten by the insertion pictures,

wherein a decision is made as to whether the currently written insertion picture or the immediately preceding insertion picture is read out,

wherein more than one memory segment of the memory device is required for storing an insertion picture, and in that the memory segments of the memory device are cyclically overwritten by the insertion pictures in a predetermined order, and

wherein a comparison is made to determine whether a main picture and an insertion picture to be inserted into the latter have an identical field position, and, in the case of a differing field position, an identical field position is achieved by address shifting of the main picture or of the insertion picture.

Claims 22-23 (canceled)

Claim 24 (currently amended): ~~The circuit arrangement of claim 22~~ A circuit arrangement for picture-in-picture insertion, comprising:

a memory device for storing vertically decimated insertion pictures, the memory device having a storage capacity of greater than one insertion picture but less than two insertion pictures and being subdivided into memory segments which can be continuously overwritten by the insertion pictures;

a control device for reading out the vertically decimated insertion pictures from the memory device and for inserting the insertion pictures read out into a sequence of main pictures;
and

a decision device for deciding whether the currently written insertion picture or the immediately preceding insertion picture is read out,

wherein each memory segment has a storage capacity of less than one insertion picture, the memory segments of the memory device can be cyclically overwritten by the insertion pictures in a predetermined order, and

M. Brett et al.
U.S. Serial No. 09/806,003
Page 5 of 6

wherein the memory device has a storage capacity which is $(2-1/VD)$ times the storage capacity required for an insertion picture, where VD is the vertical decimation of the insertion picture.

Claim 25 (previously presented): The circuit arrangement of claim 24 wherein the memory segments are the same size and the number of memory segments is $2 * VD - 1$, the number of memory segments required for an insertion picture corresponding to the vertical decimation (VD).

Claim 26 (currently amended): ~~The circuit arrangement of claim 22~~ A circuit arrangement for picture-in-picture insertion, comprising:

a memory device for storing vertically decimated insertion pictures, the memory device having a storage capacity of greater than one insertion picture but less than two insertion pictures and being subdivided into memory segments which can be continuously overwritten by the insertion pictures;

a control device for reading out the vertically decimated insertion pictures from the memory device and for inserting the insertion pictures read out into a sequence of main pictures;
and

a decision device for deciding whether the currently written insertion picture or the immediately preceding insertion picture is read out,

wherein each memory segment has a storage capacity of less than one insertion picture, the memory segments of the memory device can be cyclically overwritten by the insertion pictures in a predetermined order, and

wherein in a manner dependent on the ratio of a reading speed of a read pointer to a writing speed of a write pointer and a relative position of the write pointer in a writing area holding the currently written insertion picture, the decision device decides whether the currently written insertion picture or the immediately preceding insertion picture is read out.